

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2005/000559

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 C12N15/11 A61K31/713 C12Q1/68

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, EMBASE, BIOSIS, PAJ, Sequence Search

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GAO LIN ET AL: "Cloning and functional characterization of HDAC11, a novel member of the human histone deacetylase family." THE JOURNAL OF BIOLOGICAL CHEMISTRY. 12 JUL 2002; vol. 277, no. 28, 12 July 2002 (2002-07-12), pages 25748-25755, XP002324623 ISSN: 0021-9258 abstract page 25753, left-hand column, last paragraph page 25754, right-hand column ----- -/--	I-17

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

1 June 2005

Date of mailing of the international search report

30/06/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 03/068961 A (AXORDIA LIMITED; ANDREWS, PETER; WALSH, JAMES; GOKHALE, PAUL) 21 August 2003 (2003-08-21) page 16, line 17 - line 20 page 17, line 1 - line 2 table 4	1-17
A	----- KRÄMER O H ET AL: "Histone deacetylase as a therapeutic target." TRENDS IN ENDOCRINOLOGY AND METABOLISM: TEM. SEP 2001, vol. 12, no. 7, September 2001 (2001-09), pages 294-300, XP002329890 ISSN: 1043-2760	1-17
A	----- ARENZ CHRISTOPH ET AL: "RNA interference: from an ancient mechanism to a state of the art therapeutic application?" DIE NATURWISSENSCHAFTEN. AUG 2003, vol. 90, no. 8, August 2003 (2003-08), pages 345-359, XP002324624 ISSN: 0028-1042 the whole document	1-7
A	----- ACHENBACH TATJANA V ET AL: "Oligonucleotide-based knockdown technologies: antisense versus RNA interference." CHEMBIOCHEM : A EUROPEAN JOURNAL OF CHEMICAL BIOLOGY. 6 OCT 2003, vol. 4, no. 10, 6 October 2003 (2003-10-06), pages 928-935, XP002324625 ISSN: 1439-4227 the whole document	1-17
A	----- LU PATRICK Y ET AL: "siRNA-mediated antitumorigenesis for drug target validation and therapeutics." CURRENT OPINION IN MOLECULAR THERAPEUTICS. JUN 2003, vol. 5, no. 3, June 2003 (2003-06), pages 225-234, XP009037747 ISSN: 1464-8431 the whole document	1-17
A	----- KITTLER RALF ET AL: "RNA interference: gene silencing in the fast lane." SEMINARS IN CANCER BIOLOGY. AUG 2003, vol. 13, no. 4, August 2003 (2003-08), pages 259-265, XP002266372 ISSN: 1044-579X the whole document	1-17
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International Application No  
PCT/EP2005/000559

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	<p>WO 2004/094636 A (GALAPAGOS GENOMICS N.V; ARTS, GERARDUS, JOHANNES, FRANCISCUS; VAN DER) 4 November 2004 (2004-11-04) the whole document</p> <p>-----</p>	1-17

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### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: claims 1-2, 4, 12-16 (all partially)  
because they relate to subject matter not required to be searched by this Authority, namely:  
Although claims 1-2, 4, 9-13 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.: 1-2, 4, 12-16 (all partially)  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

#### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210

## Continuation of Box II.1

Although claims 1-2,4,9-13 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

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## Continuation of Box II.2

Claims Nos.: 1-2, 4,12-16 (all partially)

The claimed subject-matter (for example claims 1-2, 4, 12-16) relates to the use of an extremely large number of possible compounds. Support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT is to be found, however, for only a small proportion of the compounds claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely those parts relating to short interfering nucleic acid (siRNA) molecules directed to HDAC11.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2005/000559

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 03068961	A	21-08-2003	AU	2003214363 A1	04-09-2003
			EP	1474512 A2	10-11-2004
			WO	03068961 A2	21-08-2003
WO 2004094636	A	04-11-2004	WO	2004094636 A1	04-11-2004
			AU	2003224132 A1	19-11-2004